

Water Contact Diseases

Leptospirosis – Wading, swimming, other contact with water/mud contaminated with infected animal urine; worst-case, 1–10 percent affected per month

- Threat year-round; countrywide
- Symptoms – fever, chills, nausea
- Hospitalization of 1-7 days

Prevention – Do not swim/wade in unapproved water; wash skin and clothing after exposure to freshwater streams/ponds.

ENVIRONMENTAL RISKS

Short-term health risks

- Food contaminated with fecal pathogens
- Water contaminated with raw sewage
- Extreme heat, high altitude, airborne sand

Long-term health risks

- Air contamination
- Chemical contamination of food and water

HAZARDOUS ANIMALS AND PLANTS

Venomous Snakes – Aggressive cobras, kraits, pit vipers, and vipers are present country-wide; some have venom which can cause death within hours. If bitten, seek urgent medical attention!

Prevention – Do not handle any snake.

Centipedes, Millipedes, and Solifugids – None with deadly venom but capable of inflicting painful bites or secreting fluids that can blister skin

Prevention – Shake out boots/bedding/clothing prior to use; never walk barefoot; avoid sleeping on the ground; seek medical attention if bitten.

Scorpions and Spiders – Some scorpions have potentially lethal venom; tarantulas and black widow spiders can deliver painful bites.

Prevention – Shake out boots/bedding/clothing prior to use; never walk barefoot; avoid sleeping on the ground; use caution when entering abandoned buildings or bunkers; seek medical attention if bitten/stung.

Marine Animals – Numerous venomous sea snakes, rays, fish, starfish, shellfish, jellyfish, anemones, sea nettles/urchins in coastal waters

Hazardous Animals and Plants (Continued)

Prevention – Swim at approved beaches; do not handle; seek medical attention if stung/bitten.

Hazardous Plants – Numerous toxic plants can cause skin/lung irritation if touched/burned and poisoning if chewed/eaten.

Prevention – Do not touch, chew, eat, or burn unfamiliar plants; wash contaminated skin/clothing after contact.

HIGH ELEVATIONS

Operations at 6,000 feet can impact unit and individual effectiveness.

Signs of **altitude sickness**: headache, nausea, vomiting, dizziness, fatigue, irritability, coughing

Acclimatization:

- Staged Ascent – Ascend to moderate altitude (5,000–8,000 feet) and remain there for 3 days before ascending higher.
- Graded Ascent – Limit daily altitude to allow partial acclimatization. Spend 2 nights at 9,000 feet and limit to no more than 1,000 feet per day above each night's sleep.

Treatment – The preferred method to treat any high altitude illness is to evacuate the individual to a lower altitude. See GTA 08-05-060, *A Soldier's Guide to Staying Healthy at High Elevations*.

DISTRIBUTION UNLIMITED

Prepared by:



U.S. Army Center for Health Promotion & Preventive Medicine

<http://chppm-www.apgea.army.mil>
SIPRNet: <http://usachppm1.army.smil.mil>
(800) 222-9698/ DSN 584-4375/ (410) 436-4375
SHG 041-1105

DEPLOYMENT HEALTH GUIDE: PAKISTAN



This country-specific guide should be used in conjunction with [GTA 08-05-062, Guide to Staying Healthy](#), and is intended to provide information that can help reduce your risk of Disease and Non-battle Injuries (DNBI) when deployed. This health threat and countermeasure information is based on the most current data available from U.S. Department of Defense medical agencies at the time of production. In addition to the information in this guide, you should also receive force health protection, health threat, and preventive medicine countermeasures training/briefings prior to and, as required, throughout the length of your deployment.

PAKISTAN OVERVIEW

Location – Pakistan is located in Southern Asia, bordering the Arabian Sea, between India on the east, Iran and Afghanistan on the west, and China on the North. Pakistan is about twice the size of California.

Climate – Mostly hot, dry desert; temperate in the northwest. During the winter, temperatures range from 57° F in the Indus Plain to 68° F along the coast and - 4° F in the mountains. During the summer, temperatures can reach as high as 124° F.

Rainfall – Rainfall is 60 inches in the northern highlands, 6–8 inches along the coast, and 4 inches in the desert.

Terrain – One-third of Pakistan consists of the Himalayan and Trans-Himalayan Mountains (8,000–15,000+ feet). The Indus Plain, located in south and central Pakistan, is approximately 200,000 square miles and is the country's most prosperous agricultural region.

Forces of Nature – Cyclones, periodic flooding, sandstorms and dust storms

RISK ASSESSMENT

Pakistan is at **HIGH RISK*** for infectious diseases. Without force health protection measures, mission effectiveness will be seriously jeopardized.

*Based on a combination of all major infectious diseases that occur in a country, the Armed Forces Medical Intelligence Center (AFMIC) assigns an **overall country risk level** of low, intermediate, high, or very high risk, as compared to other countries.

INFECTIOUS DISEASES

Food-borne and Water-borne Diseases

Consuming contaminated food, water, or ice

Hepatitis A – A potential attack rate of 1–10 percent per month among unvaccinated personnel could occur if local food, water, or ice is consumed.

- Threat year-round; countrywide
- Symptoms – none to flu-like illness
- Severe, 1–4 weeks recovery, sometimes initially requiring hospitalization

Diarrhea, bacterial – A potential attack rate over 50 percent a month if local food, water, or ice is consumed

- Threat year-round; countrywide

Food-borne and Water-borne Diseases (Continued)

- Symptoms – loose, watery or explosive bowel movements
- Recovery of 1–3 days with antibiotics

Typhoid/Paratyphoid fever – A potential attack rate of 1–10 percent among unvaccinated personnel consuming local food, water, or ice

- Threat year-round; countrywide
- Symptoms – fever, constipation, headache
- Hospitalization of 1–7 days

Hepatitis E – A potential attack rate of less than 1 percent a month if local food, water, or ice is consumed

- Threat year-round; countrywide
- Symptoms – jaundice, fatigue, nausea, vomiting
- Severe, 1–4 weeks recovery, sometimes initially requiring hospitalization

Prevention – Consume only U.S. military-approved food, water, ice; **hepatitis A vaccine** and/or **typhoid vaccine** if directed by medical authority.

Vector-borne Diseases

Greatest concern:

Dengue fever – Significant number of cases possible

- Transmission – day-biting mosquitoes
- Threat year-round; countrywide, but greatest in southern Pakistan
- Symptoms – high fever, severe muscle pain, severe headache, rash
- Hospitalization of 1-7 days likely

Malaria – Significant number of cases possible

- Transmission – night-biting mosquitoes
- Threat year-round, greatest after the July–August monsoon; countrywide below 2,000 meters
- Symptoms – fever, chills, sweats; mild to severe, including coma and death
- Hospitalization of 1-7 days likely; prolonged recovery or death possible

Others – A small or undetermined number of cases could occur: **Chikungunya** (mosquito-borne); **Crimean-Congo hemorrhagic fever** (tick-borne); **Japanese encephalitis** (mosquito-borne); **leishmaniasis** (cutaneous and visceral, sand fly-borne); **rickettsioses** (Boutonneuse fever and Siberian tick typhus, tick-borne); **sandfly fever** (sand fly-borne); **typhus** (scrub typhus, mite-borne); and **West Nile fever** (mosquito-borne)

Vector-borne Diseases (Continued)

Prevention – **DEET** on exposed skin; **permethrin-treated uniforms**; **permethrin-treated bed nets**; **malaria prevention pills** as prescribed (critical)

Animal Contact Diseases

Rabies – Exposure to virus-laden saliva of an infected animal through a bite, scratch, or breathing airborne droplets; risk is among the highest in the world

- Threat year-round; countrywide
- Initial symptoms – pain, tingling, or itching from bite site; chills, fever, muscle aches
- Death likely in the absence of post-exposure prophylaxis

Prevention – Avoid all animals; if scratched or bitten, seek medical attention immediately; pre- and/or post-exposure vaccinations if prescribed by medical authority.

Others – **Anthrax**, **Q fever**

Respiratory Diseases

Tuberculosis – Breathing contaminated air droplets from other people (coughing/sneezing)

- Highest threat from prolonged close contact with local populations
- Threat year-round; countrywide
- Symptoms – none to cough, chest pain, breathlessness, night sweats
- Severe illness or death if not treated

Prevention – Avoid close contact with local populations; early detection/treatment reduces severity.

Sexually Transmitted Diseases

Gonorrhea/Chlamydia – Unprotected sexual contact with infected person; potential attack rate of 1–50 percent

- Threat year-round; countrywide
- Symptoms (in men) – None to burning sensation when urinating or discharge
- Symptoms (in women) – None to burning when urinating to increased vaginal discharge
- Mild; outpatient treatment

Others – **HIV/AIDS**, **hepatitis B**

Prevention – Abstinence; latex condoms; not sharing needles; **hepatitis B vaccine**